

EXHIBIT C

PART 2

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Based on Wu's teachings, one of ordinary skill in the art would have recognized the substitutability of soft polyurethane for soft balata-based materials and the advantages of making such a substitution. These advantages include (1) low price compared to balata; (2) better cut resistance when compared to balata; and (3) a "click" and "feel" that is similar to balata. Moreover, the replacing the balata-material taught by Proudfit would have been obvious to those skilled in the art prior to November 9, 1995 because before that time, the Titleist ProfessionalTM golf ball, which had used Wu's polyurethane material, had replaced balata-covered balls as the market leader. (See Decl. of Jeffrey L. Dalton at ¶¶ 3-4.) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to modify Proudfit's golf ball by replacing the soft balata-based outer cover layer with an outer cover layer made of soft polyurethane material because Wu's polyurethane material has similar mechanical properties and provides numerous advantages over balata while exhibiting the "click" and "feel" of balata.

This rejection of claim 4 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #28.

The requester submits on pages 45-46 that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 4	Proudfit
A golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (Proudfit, col. 1, ll. 11-12)

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a core;	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)</p> <p>"Two specific solid core compositions used with the new two-layer cover had the composition describe in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit, col. 7, ll. 51-55)</p>						
an inner cover layer disposed about said core,	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)</p>						
said inner cover layer having a Shore D hardness of at least 60,	See below with respect to Shore D hardness.						
said inner cover layer comprising a blend of two or more ionomeric resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p>"The composition of the inner cover layer is described in Table 6."</p> <table border="1"> <caption>TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</caption> <thead> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium-Surlin 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlin 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for</p>	Ionomer Type	Blend Ratio	Sodium-Surlin 8940	75%	Zinc-Surlin 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlin 8940	75%						
Zinc-Surlin 9910	25%						

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	making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.
an outer cover layer disposed on said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch...." (Proudfit, col. 7, ll. 40-46)
comprising a polyurethane material.	"...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17)

As expressed in the request on page 45 and identified above within the claim chart, Proudfit teaches a golf ball have a two-piece cover including a hard, ionomeric inner cover layer and a soft balata blend outer cover layer. Proudfit lacks in disclosing the use of polyurethane as the material for the outer cover layer. Instead, as shown in Table 7, reproduced below, Proudfit discloses the outer cover layer being made of a blend of balata.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans Polyisoprene (TP-301)	80.00
Polybutadiene	60.00
Zinc Oxide	5.00
Titanium Dioxide	17.00
Ultramarine Blue color	.50
Zinc DiAcrylate	35.00
Peroxide (Varon 230 XL)	2.50
Total	160.00

However, those skilled in the art understand the disadvantages of balata covered golf balls. As admitted by the patent owner:

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[d]espite all the benefits of balata, balata covered golf balls are easily cut and/or damaged if mis-hit. Golf balls produced with balata or balata-containing cover compositions therefore have a relatively short lifespan.

(Sullivan '873, col. 1, ll. 39-42). With this disadvantage of balata covered golf balls, golf ball designers looked for materials that would provide the same "click" and "feel" golfers expected and have increased durability.

As pointed out in the request on page 45, lines 12-16, in an analogous golf ball, Molitor '751 teaches that:

It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a **cover having a shore C hardness less than 85**, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a **thermoplastic urethane having a shore A hardness less than 95** and (2) an ionomer having a shore D hardness greater than 55. The ionomer comprises olefinic groups having two to four carbon atoms copolymerized with acrylic or methacrylic acid groups and cross-linked with metal ions, preferably sodium or zinc ions. **The primary components of the blended cover are set at a weight ratio so as to result in a cover material after molding having a shore C hardness within the range of 70 to 85, preferably 72 to 76.** Preferably, the urethane component of the cover material has a tensile strength greater than 2500 psi and an elongation at break greater than 250%. A preferred cover material comprises about 8 parts of the thermoplastic urethane and between 1 and 4 parts ionomer. Preferably, the cover is no greater than 0.060 inch thick. Thinner covers appear to maximize the short iron playability characteristics of the balls.

(Molitor '751, col. 33-57 (emphasis added)). Thus, Molitor '751 teaches having a outer cover layer with a Shore C hardness less than 85 and preferably between 72 and 76. Moreover, Molitor '751 teaches what golf balls are included in the definition of "two-piece" ball within its instant specification.

The phrase "two-piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, **but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores.**

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Molitor '751, col. 3, ll. 7-12 (emphasis added)). Proudfit, likewise, teaches the two-piece golf balls can fit within this definition.

FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material.

(Proudfit, col. 7, ll. 21-24).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance a polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This

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is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

As stated in the request on page 46

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft outer cover layer of Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

This rejection of claim 4 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 5

Proposed Third Party Requester Rejection: Ground #29.

The requester submits on page 47 that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

Proposed Third Party Requester Rejection: Ground #30.

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In the alternative, the requester submits on page 30 that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Nesbitt and Nesbitt mentioning Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 5	Nesbitt/Nesbitt mentioning Molitor
The golf ball of claim 4 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	<p>See above.</p> <p><u>Nesbitt</u>: Nesbitt teaches an outer cover layer made of Surlyn 1855 (now Surlyn 9020) that has a Shore D hardness of 55, <u>see</u> Exhibit I.</p> <p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See also below for Shore D hardness of 64 or less limitation explanation.</p>

As stated above, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover,

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as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334. Thus, because the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 5 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #31.

The requester submits on page 47 of the request that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt, Nesbitt mentioning Molitor '637 or Wu discloses, teaches or suggests the claim limitations.

Claim 5	Nesbitt/Nesbitt mentioning Molitor '637 or Wu
The golf ball of claim 4 wherein	See above
said outer cover exhibits a Shore D hardness of about 64 or less.	<u>Nesbitt</u> : Nesbitt teaches an outer cover layer made of Surlyn 1855 (now Surlyn 9020) that has a Shore

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	<p>D hardness of 55, <u>see</u> Exhibit I.</p> <p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, <u>see</u> Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p><u>Wu</u>: "Preferably, a golf ball is made in accordance with the present invention by molding a cover about a core wherein the cover is formed from a polyurethane composition comprising a polyurethane prepolymer and a slow-reacting polyamine curing agent or a difunctional glycol." (Wu, col. 3, ll. 62-66).</p> <p><u>Wu</u>: "With polyurethanes made in accordance with the present invention, the degree of cure which has taken place is dependent upon, inter alia, the time, temperature, type of curative, and amount of catalyst used. It has been found that the degree of cure of the cover composition is directly proportional to the hardness of the composition. A hardness of about 10D to 30D, Shore D hardness for the cover stock at the end of the intermediate curing step (i.e. just prior to the final molding step) has been found to be suitable for the present invention. More preferred is a hardness of about 12D to 20D." (Wu, col. 6, ll. 27-38).</p> <p>See also below for Shore D hardness of 64 or less limitation explanation</p>
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Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the "click" and "feel" of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar "click" and "feel" of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923; 4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; **5,334,673**; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as

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obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 5 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #32.

The requester submits on page 47 of the request that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt or Nesbitt mentioning Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 5	Nesbitt/Nesbitt mentioning Molitor '637
The golf ball of claim 4 wherein	See above.
said outer cover exhibits a Shore D hardness of about 64 or less.	<p><u>Nesbitt</u>: Nesbitt teaches an outer cover layer made of Surlyn 1855 (now Surlyn 9020) that has a Shore D hardness of 55, <u>see</u> Exhibit I.</p> <p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an</p>

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	<p>outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See also below for Shore D hardness of 64 or less limitation explanation.</p>
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As stated above, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334. Thus, because the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 5 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #33.

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The requester submits on page 48 that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 5	Proudfit
The golf ball of claim 4 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	See above. "...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17) This material inherently has a Shore D hardness of less than 64, see the reasoning below.

Proudfit discloses, teaches and suggests a three-piece golf ball (core, inner layer and outer layer) with the layers within the range of claimed thicknesses each layer made from a material having the mechanical properties substantially similar to the claimed mechanical properties. What Proudfit lacks in clearly disclosing are the particular mechanical and chemical properties of the claimed invention. However, Proudfit either incorporates by reference these mechanical and chemical properties and/or the materials used within the Proudfit golf ball inherently have these mechanical and chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of this invention. (Proudfit, col. 1, ll.39-43). The '981 patent discloses the preferably amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Pat, col. 3, ll. 59-60). If Proudfit discloses using blends SURLYN the chemical for making the inner cover and the '981 Patent is the formulation

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for ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and SURLYN 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. As taught from Exhibit I, SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend inherently has a hardness of 60 or more. Proudfit discloses the outer layer being a blend of balata. An example of the blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans Polyisoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	1.00
Titanium Dioxide	17.00
Ultramarine Blue color	.30
Zinc DiAcrylate	33.00
Peroxide (Veron 230 XL)	2.50
Total	160.00

Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore hardness of less than 64.

This rejection of claim 5 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #34.

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The requester submits on page 48 that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Wu.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 5	Proudfit
The golf ball of claim 4 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	See above. “...an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit, col. 5, ll. 15-17) This material inherently has a Shore D hardness of less than 64, see the reasoning below.

Proudfit discloses, teaches and suggests a three-piece golf ball (core, inner layer and outer layer) with the layers within the range of claimed thicknesses each layer made from a material having the mechanical properties substantially similar to the claimed mechanical properties. What Proudfit lacks in clearly disclosing are the particular mechanical and chemical properties of the claimed invention. However, Proudfit either incorporates by reference these mechanical and chemical properties and/or the materials used within the Proudfit golf ball inherently have these mechanical and chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of this invention. (Proudfit, col. 1, ll. 39-43). The '981 patent discloses the preferably amount of unsaturated carboxylic acid is “from about 5[%] to about 15% by weight.” ('981 Pat, col. 3, ll. 59-60). If Proudfit discloses using blends SURLYN the chemical for making the inner cover and the '981 Patent is the formulation

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for ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and SURLYN 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. As taught from Exhibit I, SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend inherently has a hardness of 60 or more. Proudfit discloses the outer layer being a blend of balata. An example of the blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans Polyisoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	3.00
Titanium Dioxide	17.00
Ultramarine Blue color	.50
Zinc DiAcrylate	35.00
Peroxide (Varox 230 XL)	2.50
Total	160.00

Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore hardness of less than 64.

This rejection of claim 5 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #35.

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The requester submits on page 48 that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 5	Proudfit
The golf ball of claim 4 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	See above. "...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17) This material inherently has a Shore D hardness of less than 64, see the reasoning below.

Proudfit discloses, teaches and suggests a three-piece golf ball (core, inner layer and outer layer) with the layers within the range of claimed thicknesses each layer made from a material having the mechanical properties substantially similar to the claimed mechanical properties. What Proudfit lacks in clearly disclosing are the particular mechanical and chemical properties of the claimed invention. However, Proudfit either incorporates by reference these mechanical and chemical properties and/or the materials used within the Proudfit golf ball inherently have these mechanical and chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of this invention. (Proudfit, col. 1, ll.39-43). The '981 patent discloses the preferably amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Pat, col. 3, ll. 59-60). If Proudfit discloses using blends SURLYN the chemical for making the inner cover and the '981 Patent is the formulation

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for ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and SURLYN 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. As taught from Exhibit I, SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend inherently has a hardness of 60 or more. Proudfit discloses the outer layer being a blend of balata. An example of the blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans Polyisoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	1.00
Titanium Dioxide	17.00
Ultramarine Blue color	.50
Zinc DiAcrylate	33.00
Peroxide (Varox 230 XL)	2.50
Total	160.00

Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore hardness of less than 64.

In addition to Proudfit showing, Molitor '751 teaches that:

It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a **cover having a shore C hardness less than 85**, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a **thermoplastic urethane having a shore A hardness less than 95** and (2) an ionomer having a shore D hardness greater than 55. The ionomer comprises olefinic groups having two to four carbon atoms copolymerized with acrylic or methacrylic acid groups and cross-linked with metal ions, preferably sodium or zinc ions. **The primary components of the blended cover are set at a weight ratio so as to result in a cover material after molding having a shore C hardness within the range of**

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70 to 85, preferably 72 to 76. Preferably, the urethane component of the cover material has a tensile strength greater than 2500 psi and an elongation at break greater than 250%. A preferred cover material comprises about 8 parts of the thermoplastic urethane and between 1 and 4 parts ionomer. Preferably, the cover is no greater than 0.060 inch thick. Thinner covers appear to maximize the short iron playability characteristics of the balls.

(Molitor '751, col. 33-57 (emphasis added)). Thus, Molitor '751 teaches having a outer cover layer with a Shore C hardness less than 85 and preferably between 72 and 76. Moreover, Molitor '751 teaches what golf balls are included in the definition of "two-piece" ball within its instant specification.

The phrase "two-piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, **but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores.**

Molitor '751, col. 3, ll. 7-12 (emphasis added)). Proudfit, likewise, teaches the two-piece golf balls can fit within this definition.

FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material.

(Proudfit, col. 7, ll. 21-24).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

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How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance a polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

This rejection of claim 5 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 6

Proposed Third Party Requester Rejection: Ground #36.

The requester submits on pages 48-49 that claim 6 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

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Proposed Third Party Requester Rejection: Ground #37.

In the alternative, the requester submits on page 49 that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 6	Nesbitt
The golf ball of claim 4 wherein said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.)

This rejection of claim 6 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #38.

The requester submits on page 49 of the request that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

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Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 6	Nesbitt
The golf ball of claim 4 wherein	See above.
said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.)

This rejection of claim 6 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #39.

The requester submits on page 49 of the request that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 6	Nesbitt
The golf ball of claim 4 wherein	See above.
said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.)

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This rejection of claim 6 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejections: Ground #40-42.

The requester submits on page 49 that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637); Wu, U.S. Pat. No. 5,334,673 (Wu); or Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

These rejections are not adopted for the reasons given in below.

Claim 6 requires the outer layer thickness to be in the range of about 0.01 to about 0.05 inches. Proudfit's preferred outer layer thickness embodiment is 0.0525 inches thick. See Proudfit, col. 7, ll. 40-46. Therefore, Proudfit's preferred embodiment is outside the claimed range. Further, the difference between Proudfit's preferred embodiment and the claimed invention's upper range limit is 0.0025 inches or twenty-five thousandths of an inch. This difference equates to approximately a factor of 4. The requester admits that it is not the chemical but mechanical properties of the materials used in making golf balls which is important to those skilled in the art. One of the mechanical properties in constructing a golf ball with materials is the thickness to make a given layer. For these reasons, one skilled in the art would not find obvious the claimed invention of claim when viewing Proudfit with Molitor '637, Wu or Molitor

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'751. Note that Molitor '637, Wu or Molitor '751 lack curing the deficiencies of Proudfit with respect to the instant claimed invention.

Re. Claim 7

Proposed Third Party Requester Rejection: Ground #43.

The requester submits on page 50 that claim 7 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

Proposed Third Party Requester Rejection: Ground #44.

In the alternative, the requester submits on page 50 that claim 7 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 7	Nesbitt
The golf ball of claim 4 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575

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inches." (Nesbitt, col. 3, ll. 39-40.)
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This rejection of claim 7 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #45.

The requester submits on page 50 of the request that claim 7 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 7	Nesbitt
The golf ball of claim 4 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3, ll. 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (Nesbitt, col. 3, ll. 39-40.)

This rejection of claim 7 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Proposed Third Party Requester Rejection: Ground #46.

The requester submits on page 50 of the request that claim 7 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 7	Nesbitt
The golf ball of claim 4 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surllyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3, ll. 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (Nesbitt, col. 3, ll. 39-40.)

This rejection of claim 4 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #47.

The requester submits on pages 51-52 that claim 7 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

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Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 7	Proudfit
The golf ball of claim 4 wherein	See above.
said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ..." (Proudfit, col. 7, ll. 40-46.)

This rejection of claim 4 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #48.

The requester submits on pages 51-52 that claim 7 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Wu.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 7	Proudfit
The golf ball of claim 4 wherein	See above.
said outer cover layer has a	"The thickness of the outer layer can be within the range of

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thickness of from about 0.03 to about 0.06 inches.	about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ..." (Proudfit, col. 7, ll. 40-46.)
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This rejection of claim 7 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #49.

The requester submits on pages 51-52 that claim 7 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 7	Proudfit
The golf ball of claim 4 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ..." (Proudfit, col. 7, ll. 40-46.)

This rejection of claim 7 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Re. Claim 8**Proposed Third Party Requester Rejection: Ground #50.**

The requester submits on pages 53-55 that claim 8 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

Proposed Third Party Requester Rejection: Ground #51.

In the alternative, the requester submits on pages 53-55 that claim 8 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 8	Nesbitt (primary) with Molitor '637 (teaching)
A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract; and FIGS. 1 & 2)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere. (Nesbitt, col. 2, ll. 31-34).
an inner cover layer disposed on said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material...." (Nesbitt, col. 2, ll. 34-

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	37).
said inner cover layer having a Shore D hardness of about 60 or more,	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 Surlyn® marketed by E.I DuPont de Nemours." (Nesbitt, col. 2, lines 36-38.)</p> <p><u>Per the '156 Patent</u>: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('156 patent, col. 2, lines 46-48.)</p> <p><u>Exhibit I: DuPont Surlyn® Product Information</u>: Surlyn® 8940 has a Shore D hardness of 65.</p>
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and	<p>"Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60).</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34).</p>
having a modulus of from about 15,000 to about 70,000 psi; and	See below.
an outer cover layer disposed about said inner cover layer,	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt, col. 3, lines 19-23.)
comprising a polyurethane material.	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p>

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Exhibit J: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.

As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid. Moreover, as stated above, it has been identified that one resin in Nesbitt has a flexural modulus of 51,000 psi. This teaching of flexural modulus falls within the range claimed (15,000 psi to 70,000 psi).

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Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the

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mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 8 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #52.

The requester submits on pages 55-57 of the request that claim 8 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Wu discloses, teaches or suggests the claim limitations. As reported in the Order granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which

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is mentioned in Nesbitt teach the use of particular polyurethane materials for the use as an outer layer.

Claim 8	Nesbitt mentioning Molitor '637 with Wu (teaching)
A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract; and FIGS. 1 & 2)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere. (Nesbitt, col. 2, ll. 31-34).
an inner cover layer disposed on said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material...." (Nesbitt, col. 2, ll. 34-37).
said inner cover layer having a Shore D hardness of about 60 or more,	<u>Nesbitt</u> : "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 Surlyn® marketed by E.I DuPont de Nemours." (Nesbitt, col. 2, lines 36-38.) <u>Per the '156 Patent</u> : "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('156 patent, col. 2, lines 46-48.) <u>Exhibit I</u> : DuPont Surlyn® Product Information: Surlyn® 8940 has a Shore D hardness of 65.
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and	"Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60). <u>Molitor '637</u> : Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34).
having a modulus of from about 15,000 to about 70,000 psi; and	See below.
an outer cover layer disposed about said inner cover layer,	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll.

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	43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt, col. 3, lines 19-23.)
comprising a polyurethane material.	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p><u>Wu</u>: "[t]he present invention is a golf ball product made from a polyurethane prepolymer cured with a slow-reacting curing agent selected from the group of slow-reacting polyamine curing agents or difunctional glycols. The term "golf ball product" as used in the specification and claims means a cover, a core, a center or a one-piece golf ball. The cover of a golf ball made in accordance with the present invention has been found to have good shear resistance, cut resistance, durability and resiliency. Preferably, the polyurethane composition of the present invention is used to make the cover of a golf ball." (Wu, col. 2, ll. 33-44).</p>

As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the

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art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid. Moreover, as stated above, it has been identified that one resin in Nesbitt has a flexural modulus of 51,000 psi. This teaching of flexural modulus falls within the range claimed (15,000 psi to 70,000 psi).

As mentioned above, Nesbitt mentioning Molitor '637 teaches the use of particular polyurethane materials for the use as an outer layer. Wu teaches that polyurethane was being used as the outer layer of golf ball *circa* 1993. Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the "click" and "feel" of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar "click" and "feel" of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final

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molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923; 4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; **5,334,673**; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 8 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Proposed Third Party Requester Rejection: Ground #53.

The requester submits on pages 57-59 of the request that claim 8 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations. As reported in the Order granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials for the use as an outer layer.

Claim 8	Nesbitt mentioning Molitor '637
A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract; and FIGS. 1 & 2)
a core:	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core formed as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere. (Nesbitt, col. 2, ll. 31-34).
an inner cover layer disposed on said core,	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37).
said inner cover layer having a Shore D hardness of about 60 or more,	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 Surlyn® marketed by E.I DuPont de Nemours." (Nesbitt, col. 2, lines 36-38.)</p> <p><u>Per the '156 Patent</u>: "Type 1605 Surlyn® (now designated Surlyn® 8940)." ('156 patent, col. 2, lines 54-60.)</p>

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	<u>Exhibit I: DuPont Surlyn® Product Information: Surlyn® 8940 has a Shore D hardness of 65.</u>
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and	<p>"Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60).</p> <p><u>Molitor '637:</u> Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34).</p>
having a modulus of from about 15,000 to about 70,000 psi; and	
an outer cover layer disposed about said inner cover layer,	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner ply or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (Nesbitt, col. 3, lines 19-23.)
comprising a polyurethane material.	<p><u>Nesbitt:</u> "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637:</u> In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p><u>Exhibit J:</u> ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>

As shown above in the claim chart, Nesbitt mentioning Molitor '637 suggests the use of a soft outer cover layer including a polyurethane material. In an analogous golf ball, Molitor '751 teaches that:

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It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55.

(Molitor '751, col. 2, ll.33-49 (emphasis added)).

Moreover, in explaining what constitutes a two-piece golf ball, Molitor '751 teaches that:

The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls have non-wound cores.

(Molitor '751, col. 3, ll. 7-12 (emphasis added)).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs

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from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

As stated in the request spanning page 58 and page 59

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft outer cover layer of Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873

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Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid. Moreover, as stated above, it has been identified that one resin in Nesbitt has a flexural modulus of 51,000 psi. This teaching of flexural modulus falls within the range claimed (15,000 psi to 70,000 psi).

As stated in the request spanning pages 41-42

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft non-ionomeric polymeric outer cover layer incorporated by Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

Moreover, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 8 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Proposed Third Party Requester Rejection: Ground #54.

The requester submits on pages 59-62 that claim 8 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 8	Proudfit
A golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (Proudfit, col. 1, ll. 11-12)
a core:	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)</p> <p>"Two specific solid core compositions used with the new two-layer cover had the composition describe in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit, col. 7, ll. 51-55)</p>
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)
said inner cover layer having a	See below with respect to Shore D hardness.

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Shore D hardness of about 60 or more,									
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and	<p>"The composition of the inner cover layer is described in Table 6."</p> <p style="text-align: center;">TABLE 6</p> <table border="1"> <thead> <tr> <th colspan="2">Composition of Inner Layer of Cover (Parts by Weight)</th></tr> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>	Composition of Inner Layer of Cover (Parts by Weight)		Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Composition of Inner Layer of Cover (Parts by Weight)									
Ionomer Type	Blend Ratio								
Sodium-Surlyn 8940	75%								
Zinc-Surlyn 9910	25%								
having a modulus of from about 15,000 to about 70,000 psi; and	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p>								

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	<p style="text-align: center;">TABLE 6</p> <p style="text-align: center;">Composition of Inner Layer of Cover (Parts by Weight)</p> <table border="1" style="margin: auto;"> <thead> <tr> <th style="text-align: center;">Ionomer Type</th><th style="text-align: center;">Blend Ratio</th></tr> </thead> <tbody> <tr> <td style="text-align: center;">Sodium-Sulfox 8940</td><td style="text-align: center;">75%</td></tr> <tr> <td style="text-align: center;">Zinc-Sulfox 9910</td><td style="text-align: center;">25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium-Sulfox 8940	75%	Zinc-Sulfox 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Sulfox 8940	75%						
Zinc-Sulfox 9910	25%						
an outer cover layer disposed about said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material. " (Proudfit, col. 7, ll. 21-24)						
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch...." (Proudfit, col. 7, ll. 40-46)						
comprising a polyurethane material.	"...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17)						

As pointed out in the request on pages 61 and 62:

While Proudfit may not expressly disclose the use of polyurethane as an outer cover material, it would have been obvious given that "[t]he patent literature is replete with proposed cover formulations seeking to improve upon the balata and ionomer covers [including] [p]olyurethane" (See Molitor '751, col. 2, lines 9-12.) Soft polyurethane materials had been known to be a substitute for balata covers for decades prior to the filing of the '130 patent.

For example, Molitor '637 discloses the use of polyurethane material as a soft polymeric material that may be used as an outer cover layer of a golf ball. (See Molitor '637, col. 5, lines 33-41; col. 18, Examples 16 and 17.) One exemplary polyurethane material used by Molitor as an outer cover material includes Estane 58133.

As was readily appreciated by those skilled in the art—including the inventor of the '130 patent—the types of materials used in a golf ball are not as critical to a golf ball's playability as are the mechanical properties of those materials. (See Exhibit G at 334.) The Estane 58133 is a relatively soft material and has a Shore D hardness of 55 and is also a low flexural modulus material having a modulus of about 25,000 psi. (See Exhibit J.) Proudfit's outer cover layer is also relatively soft and has a flexural modulus between 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31.) Due to the similarities between these two materials, the ordinarily skilled artisan would have recognized the substitutability of these two materials as well as the benefits of using polyurethane as an outer cover material.

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On page 62, the request concludes:

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the balata-based outer cover layer of Proudfit to include the Estane polyurethane outer cover layer material of Molitor '637 because such was a well known substitute to balata and gives a number of advantages over balata as would have been readily appreciated by those skilled in the art. These advantages include: (1) improved processability; (2) improved durability when compared to balata; (3) cost-effectiveness when compared to balata; and (4) having a good "click" and "feel." All of this would have led one of ordinary skill in the art to replace the soft balata outer cover layer of Proudfit with the soft polyurethane outer cover layer of Molitor '637 at the time of the alleged invention.

This rejection of claim 8 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #55.

The requester submits on pages 62-64 that claim 8 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Wu.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 8	Proudfit
A golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (Proudfit, col. 1, ll. 11-12)
a core:	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively

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	<p>soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)</p> <p>"Two specific solid core compositions used with the new two-layer cover had the composition describe in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit, col. 7, ll. 51-55)</p>								
an inner cover layer disposed on said core,	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)</p>								
said inner cover layer having a Shore D hardness of about 60 or more,	See below with respect to Shore D hardness.								
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and	<p>"The composition of the inner cover layer is described in Table 6."</p> <table border="1"> <caption>TABLE 6</caption> <thead> <tr> <th colspan="2">Composition of Inner Layer of Cover (Parts by Weight)</th> </tr> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium- Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc- Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades</p>	Composition of Inner Layer of Cover (Parts by Weight)		Ionomer Type	Blend Ratio	Sodium- Surlyn 8940	75%	Zinc- Surlyn 9910	25%
Composition of Inner Layer of Cover (Parts by Weight)									
Ionomer Type	Blend Ratio								
Sodium- Surlyn 8940	75%								
Zinc- Surlyn 9910	25%								

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	of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.						
having a modulus of from about 15,000 to about 70,000 psi; and	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlins" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlin resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p> <div style="text-align: center;"> <p>TABLE 6</p> <p>Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium- Surlin 8940</td><td>75%</td></tr> <tr> <td>Zinc- Surlin 9910</td><td>25%</td></tr> </table> </div> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium- Surlin 8940	75%	Zinc- Surlin 9910	25%
Ionomer Type	Blend Ratio						
Sodium- Surlin 8940	75%						
Zinc- Surlin 9910	25%						
an outer cover layer disposed about said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)						
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch...." (Proudfit, col. 7, ll. 40-46)						
comprising a polyurethane material.	"...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17)						

As pointed out in the request on pages 62 and 63:

... Proudfit teaches a golf ball having a two-piece cover including a hard, ionomeric inner cover layer and a soft balata outer cover layer. While Proudfit may not disclose the use of a polyurethane material as the outer cover layer of a golf ball, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the soft balata outer cover layer of Proudfit to include the soft polyurethane material taught by Wu. Wu

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teaches that: "The problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46.) As the inventor of the '130 patent had indicated in a 1994 publication, golf ball designers understood that the mechanical properties of the layers impacted the performance of the golf ball more than the materials themselves. (Exhibit G at 334.) Additionally, Wu's polyurethane material inherently has a flexural modulus of about 23,000 psi as measured in accordance with ASTM standards. (Decl. of Jeff Dalton at ¶ 7.) Proudfit's outer cover layer material has a flexural modulus of between about 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31.) Thus, one of ordinary skill in the art would have appreciated that using Wu's polyurethane as Proudfit's outer cover layer would have provided similar playability characteristics as well as numerous advantages including, for example, durability.

Based on Wu's teachings, one of ordinary skill in the art would have recognized the substitutability of soft polyurethane for soft balata-based materials and the advantages of making such a substitution. These advantages include (1) low price compared to balata; (2) better cut resistance when compared to balata; and (3) a "click" and "feel" that is similar to balata. Moreover, the replacing the balata-material taught by Proudfit would have been obvious to those skilled in the art prior to November 9, 1995 because before that time, the Titleist Professional™ golf ball, which had used Wu's polyurethane material, had replaced balata-covered balls as the market leader. (See Exhibit C; see also Decl. of Jeffery L. Dalton at ¶¶ 3-4.)

On page 64 the request concludes with:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to modify Proudfit's golf ball by replacing the soft balata outer cover layer with an outer cover layer made of soft polyurethane material because polyurethane provides numerous advantages over balata while exhibiting the "click" and "feel" of balata.

This rejection of claim 8 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #56.

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The requester submits on pages 64-65 that claim 8 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 8	Proudfit
A golf ball comprising:	"This invention relates to golf balls , and more particularly, to a golf ball having a two-layer cover." (Proudfit, col. 1, ll. 11-12)
a core:	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)</p> <p>"Two specific solid core compositions used with the new two-layer cover had the composition describe in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit, col. 7, ll. 51-55)</p>
an inner cover layer disposed on said core,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24)
said inner cover layer having a Shore D hardness of about 60 or more,	See below with respect to Shore D hardness.
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated	"The composition of the inner cover layer is described in Table 6."

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carboxylic acid and

TABLE 6Composition of Inner Layer of Cover
(Parts by Weight)

Ionomer Type	Blend Ratio
Sodium-Surlyn 8940	75%
Zinc-Surlyn 9910	25%

(Proudfit, col. 8, ll. 22-30)

SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.

Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of **unsaturated carboxylic acid is "from about 5[%] to about 15% by weight."** ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.

having a modulus of from about 15,000 to about 70,000 psi; and

"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)

"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)

The composition of the inner cover layer is described in Table 6.

TABLE 6Composition of Inner Layer of Cover
(Parts by Weight)

Ionomer Type	Blend Ratio
Sodium-Surlyn 8940	75%
Zinc-Surlyn 9910	25%

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	(Proudfit, col. 8, ll. 22-30.)
an outer cover layer disposed about said inner cover layer,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material. " (Proudfit, col. 7, ll. 21-24)
said outer cover layer having a thickness of from about 0.01 to about 0.07 inches, and	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch...." (Proudfit, col. 7, ll. 40-46)
comprising a polyurethane material.	"...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17)

As pointed out in the request on pages 64 and 65:

...Proudfit teaches a golf ball having a two-piece cover including a hard, ionomeric inner cover layer and a soft balata outer cover layer. While Proudfit may not disclose the use of a polyurethane material as the outer cover layer for a golf ball, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Proudfit's golf ball by replacing the soft balata outer cover layer with the soft polyurethane outer cover layer taught by Molitor '751.

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, col. 2, lines 33-49.) In explaining what a "two-piece" golf ball is, the Molitor '751 patent explains that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and Other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.)

Proudfit teaches a "two-piece" golf ball that fits within this definition. Molitor '751 explains that the advantages of using a cover layer including a soft polyurethane material on a two-piece golf ball, such as the golf ball of Proudfit, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two- piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

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Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751, col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See U.S. Patent No. 6,905,648, Table 19 (Exhibit L.) A cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

On page 65 the request concludes:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the soft balata outer cover layer of Proudfit with the soft outer cover layer including a soft polyurethane material as taught by Molitor '751 to provide golf balls that have "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

This rejection of claim 8 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 9

Proposed Third Party Requester Rejection: Ground #57.

The requester submits on page 66 that claim 9 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

Proposed Third Party Requester Rejection: Ground #58.

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In the alternative, the requester submits on page 66 that claim 9 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Nesbitt and Nesbitt mentioning Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 9	Nesbitt/Nesbitt mentioning Molitor
The golf ball of claim 8 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	<p>See above.</p> <p><u>Nesbitt</u>: Nesbitt teaches an outer cover layer made of Surlyn 1855 (now Surlyn 9020) that has a Shore D hardness of 55, <u>see</u> Exhibit I.</p> <p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See also below for Shore D hardness of 64 or less limitation explanation.</p>

As stated above, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover,

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as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334. Thus, because the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 9 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #59.

The requester submits on page 66 of the request that claim 9 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt, Nesbitt mentioning Molitor '637 or Wu discloses, teaches or suggests the claim limitations.

Claim 9	Nesbitt/Nesbitt mentioning Molitor '637 or Wu
The golf ball of claim 8 wherein	See above
said outer cover exhibits a Shore D hardness of about 64 or less.	<u>Nesbitt</u> : Nesbitt teaches an outer cover layer made of Surlyn 1855 (now Surlyn 9020) that has a Shore

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D hardness of 55, see Exhibit I.

Nesbitt: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)

Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.

ESTANE 58133 has a **Shore D hardness of 55**, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)

Wu: "Preferably, a golf ball is made in accordance with the present invention by molding a cover about a core wherein the cover is formed from a polyurethane composition comprising a polyurethane prepolymer and a slow-reacting polyamine curing agent or a difunctional glycol." (Wu, col. 3, ll. 62-66).

Wu: "With polyurethanes made in accordance with the present invention, the degree of cure which has taken place is dependent upon, inter alia, the time, temperature, type of curative, and amount of catalyst used. It has been found that the degree of cure of the cover composition is directly proportional to the hardness of the composition. A hardness of about 10D to 30D, Shore D hardness for the cover stock at the end of the intermediate curing step (i.e. just prior to the final molding step) has been found to be suitable for the present invention. More preferred is a hardness of about 12D to 20D." (Wu, col. 6, ll. 27-38).

See also below for Shore D hardness of 64 or less limitation explanation

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Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the "click" and "feel" of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar "click" and "feel" of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923; 4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; **5,334,673**; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as

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obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 9 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #60.

The requester submits on page 66 of the request that claim 9 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt or Nesbitt mentioning Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 9	Nesbitt/Nesbitt mentioning Molitor '637
The golf ball of claim 8 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	See above. <u>Nesbitt</u> : Nesbitt teaches an outer cover layer made of Surlyn 1855 (now Surlyn 9020) that has a Shore D hardness of 55, <u>see</u> Exhibit I. <u>Nesbitt</u> : "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.) <u>Molitor '637</u> : In examples 16 and 17 teaches an

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	<p>outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See also below for Shore D hardness of 64 or less limitation explanation.</p>
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As stated above, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334. Thus, because the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 9 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #61.

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The requester submits on page 67 that claim 9 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 9	Proudfit
The golf ball of claim 8 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	See above. "...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17) This material inherently has a Shore D hardness of less than 64, see the reasoning below.

Proudfit discloses, teaches and suggests a three-piece golf ball (core, inner layer and outer layer) with the layers within the range of claimed thicknesses each layer made from a material having the mechanical properties substantially similar to the claimed mechanical properties. What Proudfit lacks in clearly disclosing are the particular mechanical and chemical properties of the claimed invention. However, Proudfit either incorporates by reference these mechanical and chemical properties and/or the materials used within the Proudfit golf ball inherently have these mechanical and chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of this invention. (Proudfit, col. 1, ll.39-43). The '981 patent discloses the preferably amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Pat, col. 3, ll. 59-60). If Proudfit discloses using blends SURLYN the chemical for making the inner cover and the '981 Patent is the formulation

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for ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and SURLYN 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. As taught from Exhibit I, SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend inherently has a hardness of 60 or more. Proudfit discloses the outer layer being a blend of balata. An example of the blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans Polyisoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	5.00
Titanium Dioxide	17.00
Ultramarine Blue color	.50
Zinc DiAcrylate	35.00
Peroxide (Varox 230 XL)	2.50
Total	160.00

Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore hardness of less than 64.

This rejection of claim 9 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #62.

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The requester submits on page 67 that claim 9 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Wu.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 9	Proudfit
The golf ball of claim 8 wherein said outer cover exhibits a Shore D hardness of about 64 or less.	See above. “...an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit, col. 5, ll. 15-17) This material inherently has a Shore D hardness of less than 64, see the reasoning below.

Proudfit discloses, teaches and suggests a three-piece golf ball (core, inner layer and outer layer) with the layers within the range of claimed thicknesses each layer made from a material having the mechanical properties substantially similar to the claimed mechanical properties. What Proudfit lacks in clearly disclosing are the particular mechanical and chemical properties of the claimed invention. However, Proudfit either incorporates by reference these mechanical and chemical properties and/or the materials used within the Proudfit golf ball inherently have these mechanical and chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of this invention. (Proudfit, col. 1, ll. 39-43). The ‘981 patent discloses the preferably amount of unsaturated carboxylic acid is “from about 5[%] to about 15% by weight.” (‘981 Pat, col. 3, ll. 59-60). If Proudfit discloses using blends SURLYN the chemical for making the inner cover and the ‘981 Patent is the formulation

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for ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and SURLYN 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. As taught from Exhibit I, SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend inherently has a hardness of 60 or more. Proudfit discloses the outer layer being a blend of balata. An example of the blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans PolyIsoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	5.00
Titanium Dioxide	17.00
Ultramarine Blue color	.50
Zinc DiAcrylate	35.00
Peroxide (Varon 230 XL)	2.50
Total	180.00

Note that Trans PolyIsoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore hardness of less than 64.

This rejection of claim 9 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #63.

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The requester submits on page 67 that claim 9 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 9	Proudfit
The golf ball of claim 8 wherein	See above.
said outer cover exhibits a Shore D hardness of about 64 or less.	"...an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17) This material inherently has a Shore D hardness of less than 64, see the reasoning below.

Proudfit discloses, teaches and suggests a three-piece golf ball (core, inner layer and outer layer) with the layers within the range of claimed thicknesses each layer made from a material having the mechanical properties substantially similar to the claimed mechanical properties. What Proudfit lacks in clearly disclosing are the particular mechanical and chemical properties of the claimed invention. However, Proudfit either incorporates by reference these mechanical and chemical properties and/or the materials used within the Proudfit golf ball inherently have these mechanical and chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of this invention. (Proudfit, col. 1, ll.39-43). The '981 patent discloses the preferably amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Pat, col. 3, ll. 59-60). If Proudfit discloses using blends SURLYN the chemical for making the inner cover and the '981 Patent is the formulation

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for ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and SURLYN 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid. As taught from Exhibit I, SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend inherently has a hardness of 60 or more. Proudfit discloses the outer layer being a blend of balata. An example of the blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans PolyIsoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	3.00
Titanium Dioxide	17.00
Ultramarine Blue color	.30
Zinc DiAcrylate	35.00
Peroxide (Varon 230 XL)	2.50
Total	160.00

Note that Trans PolyIsoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore hardness of less than 64.

In addition to Proudfit showing, Molitor '751 teaches that:

It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a **cover having a shore C hardness less than 85**, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a **thermoplastic urethane having a shore A hardness less than 95** and (2) an ionomer having a shore D hardness greater than 55. The ionomer comprises olefinic groups having two to four carbon atoms copolymerized with acrylic or methacrylic acid groups and cross-linked with metal ions, preferably sodium or zinc ions. **The primary components of the blended cover are set at a weight ratio so as to result in a cover material after molding having a shore C hardness within the range of**

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70 to 85, preferably 72 to 76. Preferably, the urethane component of the cover material has a tensile strength greater than 2500 psi and an elongation at break greater than 250%. A preferred cover material comprises about 8 parts of the thermoplastic urethane and between 1 and 4 parts ionomer. Preferably, the cover is no greater than 0.060 inch thick. Thinner covers appear to maximize the short iron playability characteristics of the balls.

(Molitor '751, col. 33-57 (emphasis added)). Thus, Molitor '751 teaches having a outer cover layer with a Shore C hardness less than 85 and preferably between 72 and 76. Moreover, Molitor '751 teaches what golf balls are included in the definition of "two-piece" ball within its instant specification.

The phrase "two-piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, **but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores.**

Molitor '751, col. 3, ll. 7-12 (emphasis added)). Proudfit, likewise, teaches the two-piece golf balls can fit within this definition.

FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material.

(Proudfit, col. 7, ll. 21-24).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

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How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance a polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

This rejection of claim 9 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Re. Claim 10

Proposed Third Party Requester Rejection: Ground #64.

The requester submits on pages 67-68 that claim 10 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

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Proposed Third Party Requester Rejection: Ground #65.

In the alternative, the requester submits on page 68 that claim 10 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 10	Nesbitt
The golf ball of claim 8 wherein	See above.
said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surllyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.)

This rejection of claim 10 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #66.

The requester submits on page 68 of the request that claim 10 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

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Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 10	Nesbitt
The golf ball of claim 8 wherein	See above.
said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.)

This rejection of claim 10 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #67.

The requester submits on page 68 of the request that claim 10 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 10	Nesbitt
The golf ball of claim 8 wherein	See above.
said outer cover layer has a thickness of from about 0.01 to about 0.05 inches.	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.)

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This rejection of claim 10 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejections: Ground #68-70.

The requester submits on page 68 that claim 10 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637); Wu, U.S. Pat. No. 5,334,673 (Wu); or Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

These rejections are not adopted for the reasons given in below.

Claim 10 requires the outer layer thickness to be in the range of about 0.01 to about 0.05 inches. Proudfit's preferred outer layer thickness embodiment is 0.0525 inches thick. See Proudfit, col. 7, ll. 40-46. Therefore, Proudfit's preferred embodiment is outside the claimed range. Further, the difference between Proudfit's preferred embodiment and the claimed invention's upper range limit is 0.0025 inches or twenty-five thousandths of an inch. This difference equates to approximately a factor of 4. The requester admits that it is not the chemical but mechanical properties of the materials used in making golf balls which is important to those skilled in the art. One of the mechanical properties in constructing a golf ball with materials is the thickness to make a given layer. For these reasons, one skilled in the art would not find obvious the claimed invention of claim when viewing Proudfit with Molitor '637, Wu or Molitor

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'751. Note that Molitor '637, Wu or Molitor '751 lack curing the deficiencies of Proudfit with respect to the instant claimed invention.

Re. Claim 11

Proposed Third Party Requester Rejection: Ground #71.

The requester submits on page 69 that claim 11 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

This rejection is not adopted for the reasons given in response to Proposed Ground #1 above.

Proposed Third Party Requester Rejection: Ground #72.

In the alternative, the requester submits on page 69 that claim 11 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 11	Nesbitt
The golf ball of claim 8 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surllyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3. ll. 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575

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inches." (Nesbitt, col. 3, ll. 39-40.)
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This rejection of claim 11 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #73.

The requester submits on page 69 of the request that claim 11 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 11	Nesbitt
The golf ball of claim 8 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surllyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3, ll. 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (Nesbitt, col. 3, ll. 39-40.)

This rejection of claim 11 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Proposed Third Party Requester Rejection: Ground #74.

The requester submits on page 69 of the request that claim 11 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Patent No. 4,674,751 (Molitor '751).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Nesbitt discloses, teaches or suggests the claim limitations.

Claim 11	Nesbitt
The golf ball of claim 8 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such and Surllyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (Nesbitt, col. 3, ll. 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (Nesbitt, col. 3, ll. 39-40.)

This rejection of claim 11 based on Nesbitt in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #75.

The requester submits on page 70 that claim 11 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al. U.S. Pat. No. 4,274,637 (Molitor '637).

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Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 11	Proudfit
The golf ball of claim 8 wherein	See above.
said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ..." (Proudfit, col. 7, ll. 40-46.)

This rejection of claim 4 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #76.

The requester submits on page 70 that claim 11 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Wu.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 11	Proudfit
The golf ball of claim 8 wherein	See above.
said outer cover layer has a	"The thickness of the outer layer can be within the range of

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thickness of from about 0.03 to about 0.06 inches.	about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ..." (Proudfit, col. 7, ll. 40-46.)
--	--

This rejection of claim 11 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Proposed Third Party Requester Rejection: Ground #77.

The requester submits on page 70 that claim 11 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 11	Proudfit
The golf ball of claim 8 wherein said outer cover layer has a thickness of from about 0.03 to about 0.06 inches.	See above. "The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch ..." (Proudfit, col. 7, ll. 40-46.)

This rejection of claim 11 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Correspondence

All correspondence relating to this *inter partes* reexamination proceeding should be directed as follows:

By U.S. Postal Service Mail to:

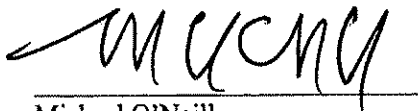
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand to: Customer Service Window
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Any inquiry concerning this communication or earlier communications from the Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:



Michael O'Neill
CRU Examiner
GAU 3993

CONF: JJ
